[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 97-NM-153-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A300-600 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain Airbus Model A300-600 series airplanes. This proposal would require repetitive inspections to detect cracks in the angle fitting at frame 40 of the center wing box, and corrective actions, if necessary; and eventual modification of that angle fitting, which would terminate the repetitive inspections. This proposal is prompted by issuance of mandatory continuing airworthiness information by a foreign civil airworthiness authority. The actions specified by the proposed AD are intended to prevent cracks in the center wing box angle fitting, which could result in the failure of the center wing box at frame 40, and consequent reduced structural integrity of the airplane.

DATES: Comments must be received by [insert date 30 days after date of publication in the **Federal Register**].

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 97-NM-153-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 97-NM-153-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 97-NM-153-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Discussion

The Direction Générale de l'Aviation Civile (DGAC), which is the airworthiness authority for France, notified the FAA that an unsafe condition may exist on certain Airbus Model A300-600 series airplanes. The DGAC advises that, during inspections of the lower outboard radius of frame 40 on Model A300 series airplanes, operators have found

30 cases of cracking in this area. The cracking originated in a fastener hole. Based on design similarity, analysis has shown that cracking also could occur in this area on Model A300-600 series airplanes. This condition, if not detected and corrected in a timely manner, could result in the failure of the center wing box at frame 40, and consequent reduced structural integrity of the airplane.

Explanation of Relevant Service Information

Airbus has issued Service Bulletin A300-57-6052, Revision 1, dated July 22, 1996, which describes procedures for repetitive inspections to detect cracks in the angle fitting at frame 40 of the center wing box, and follow-on corrective actions, if necessary. The follow-on corrective actions include repetitive eddy current inspections, and temporary repair of the area prior to accomplishment of a permanent modification.

Airbus also has issued Service Bulletin A300-57-6053, Revision 1, dated October 31, 1995, which describes procedures for a modification to the angle fitting at frame 40, which would eliminate the need for the repetitive inspections. The modification involves the installation of new angle fittings and taper-lok fasteners. Accomplishment of the actions specified in this service bulletin is intended to adequately address the identified unsafe condition.

The DGAC classified Airbus Service Bulletin A300-57-6052, Revision 1, dated July 22, 1996, as mandatory and issued French airworthiness directive (CN) 95-111-181(B)R1, dated October 23, 1996, in order to assure the continued airworthiness of these airplanes in France.

FAA's Conclusions

This airplane model is manufactured in France and is type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the DGAC has kept the FAA informed of the situation described above. The FAA has examined the findings of the DGAC, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

Explanation of Requirements of Proposed Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design registered in the United States, the proposed AD would require accomplishment of the actions specified in the service bulletins described previously, except as discussed below.

Differences between the Proposed Rule and the Related Service Bulletin

The proposed rule would differ from Airbus Service Bulletin A300-57-6052 in that, unlike the compliance time thresholds and intervals provided in the service bulletin, this proposed AD would require accomplishment of the actions at compliance time thresholds and intervals based on the Average Flight Time (AFT) of the airplane, as specified in Table 1 of this AD. The threshold and intervals defined in the service bulletin are based on an AFT of 125 minutes. For airplanes that are operated with different flight durations, adjustments must be made to the thresholds and intervals. To provide clarification of the appropriate thresholds and intervals, Table 1 has been included in this proposed AD. The thresholds and intervals provided in Table 1 have been adjusted for various AFT's.

The proposed rule also would differ from the service bulletin in that the service bulletin recommends the visual inspection be accomplished with or without the nut removed, while this proposed AD requires that any inspection, whether visual, eddy current, or liquid penetrant, be performed with the nut removed. The FAA has determined that, without removal of the nut, a visual inspection technique is not an appropriate method of compliance with the proposed AD, due to the time required to gain access to the area to be inspected and the necessity to perform frequent subsequent inspections if the inspection is done without removal of the nut.

Operators should also note that, unlike the procedures described in the service bulletin, this proposed AD would not permit further flight with cracking detected in the forward angle fitting of frame 40. The FAA has determined that, due to the safety implications and consequences associated with such cracking, all fittings that are found to be cracked must be replaced prior to further flight.

Further, although the service bulletin specifies that the manufacturer may be contacted for disposition of certain repair conditions, this proposal would require the repair of those conditions to be accomplished in accordance with a method approved by the FAA.

Additionally, operators should note that this AD proposes to mandate, within 4 years after the effective date of this AD, the modification described in Airbus Service Bulletin A300-57-6053, Revision 1, dated October 31, 1995, as terminating action for the repetitive inspections. (Incorporation of the terminating action specified in this service bulletin is optional in French airworthiness directive 95-111-181(B) R1, dated October 23, 1996.) The FAA has determined that long-term continued operational safety will be better assured by design changes to remove the source of the problem, rather than by repetitive inspections. Long-term inspections may not be providing the degree of safety assurance necessary for the transport airplane fleet. This, coupled with a better understanding of the human factors associated with numerous continual inspections, has led the FAA to consider placing less emphasis on inspections and more emphasis on design improvements. The proposed modification requirement is in consonance with these conditions.

Cost Impact

The FAA estimates that 54 Model A300-600 series airplanes of U.S. registry would be affected by this proposed AD.

It would take approximately 36 work hours per airplane to accomplish the proposed inspection, at an average labor rate of $60 per work hour. Based on these figures, the cost impact of the inspection proposed by this AD on U.S. operators is estimated to be $116,640, or $2,160 per airplane, per inspection cycle.

It would take approximately 754 work hours per airplane to accomplish the proposed modification, at an average labor rate of $60 per work hour. Required parts would cost approximately $11,605 per airplane. Based on these figures, the cost impact of the modification proposed by this AD on U.S. operators is estimated to be $3,069,630, or $56,845 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the proposed requirements of this AD action, and

that no operator would accomplish those actions in the future if this AD were not adopted.

Regulatory Impact

The regulations proposed herein would not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this proposed regulation (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption "ADDRESSES."

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRBUS: Docket 97-NM-153-AD.

Applicability: Model A300-600 series airplanes on which Airbus Modification 10453 has not been installed; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent cracks in the center wing box angle fitting, which could result in the failure of the center wing box at frame 40, and consequent reduced structural integrity of the airplane, accomplish the following:

(a) Prior to the accumulation of the threshold specified in Table 1 of this AD, as applicable, or within 1,500 flight cycles after the effective date of this AD, whichever occurs later: Perform a detailed visual, eddy current, or liquid penetrant inspection to detect cracking in the angle fitting of frame 40 (both left and right), with the nut removed, in accordance with Airbus Service Bulletin A300-57-6052, Revision 1, dated July 22, 1996. Thereafter, repeat the inspections at the interval specified in Table 1 of this AD, as applicable, until the actions required by paragraph (c) of this AD have been accomplished.

Table 1.

Average flight time (AFT): Flight Hours/ Flight Cycles	Threshold (Flight Cycles)	Visual Inspection Interval (Flight Cycles)	Eddy Current/ Liquid Penetrant Inspection Interval (Flight Cycles)
2.10-2.49	5,900	4,700	6,300
2.50-2.99	5,600	4,400	4,900

3.00-3.49	5,200	4,100	4,600
3.50-3.99	4,800	3,800	4,200
4.00-4.49	4,400	3,500	3,900
4.50-4.99	4,000	3,200	3,500
5.00-5.49	3,600	2,800	3,200
5.50-5.99	2,300	2,500	2,800
6.00-6.50	2,800	2,200	2,500

(b) Except as provided by paragraph (d) of this AD, if any crack is found during an inspection required by paragraph (a) of this AD, prior to further flight, accomplish follow-on corrective actions in accordance with the procedures specified in Airbus Service Bulletin A300-57-6052, Revision 1, dated July 22, 1996.

(c) Within 4 years after the effective date of this AD, modify the angle fitting at frame 40 (both left and right) in accordance with Airbus Service Bulletin A300-57-6053, Revision 1, dated October 31, 1995. Accomplishment of the modification constitutes terminating action for the repetitive inspections required by paragraph (a) of this AD.

(d) If any crack is found during an inspection required by paragraph (a) of this AD, and the applicable service bulletin specifies to contact the manufacturer for an appropriate action: Prior to further flight, repair in accordance with a method approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate.

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

(f) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

NOTE 3: The subject of this AD is addressed in French airworthiness directive (CN) 95-111-181(B) R1, dated October 23, 1996.

Issued in Renton, Washington, on February 26, 1998.

Original Signed By:
Darrell M. Pederson, Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.